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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/505,223	02/16/2000	Jonathan C. Kagle	M61.12-0161	6661

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EXAMINER	
GENCO, BRIAN C	

ART UNIT	PAPER NUMBER
2615	5

DATE MAILED: 06/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/505,223	KAGLE ET AL.	
	Examiner	Art Unit	
	Brian C Genco	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) *4,6-13,20-23,26 and 27* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5,14,17-19 and 24* is/are rejected.

7)☒ Claim(s) *15 and 25* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Applicant has withdrawn from further consideration claims 10-13, 26, and 27 as being drawn to a nonelected Species III, there being no allowable generic or linking claim.

In Paper No. 4 Applicant argues that claims 2-9 and 18-23 are also generic to the elected Species III. Examiner respectfully disagrees. While Examiner concedes that claims 2, 3, 5, 18, and 19 can be grouped with Species III, they are not generic claims. See MPEP §806.04(d). Examiner notes that claims 4 and 20 are drawn to non-elected Species II, claims 8 and 9 are drawn to non-elected Species I, and further claims 6, 7, 16, and 21-23 are not drawn to elected Species III. In particular, the determination of available memory claimed in claims 6, 7, and 21-23 don't disclose capturing a second frame of image light wherein as shown in Fig. 6 step 600 portions of the image from the second frame of light are selected. Further, the assessment of defective pixels as claimed in claim 16 does not apply to elected species III through at least the absence of a second image frame capture operation. As such, claims 2, 3, 5, 14, 15, 18, 19, 24, and 25 are readable on Species III with claims 1 and 17 being generic. Therefore claims 4, 6-9, 16, and 20-23 are also withdrawn from consideration.

The requirement is still deemed proper and is therefore made FINAL.

Allowable Subject Matter

Claims 15 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In regards to claim 15 the prior art of record does not disclose nor fairly suggest the method of capturing images in a camera as claimed in claims 1 and 14 further comprising

performing the pre-capture processing function on the entire second set of image data if the test result and the pre-capture result are not sufficiently similar. Examiner notes that with regards to the Parulski invention and in regards to hill-climbing focusing techniques in general that in producing the claimed test result of claim 14, the current image data, namely the second image data, the pre-capture processing function is already applied to the second set of image data. Therefore, it is not further applied to the second set of image data again if the test result (e.g., the current focus value) and the pre-capture result (e.g., the previous focus value) are not sufficiently similar. Instead a further third set of image data would be acquired and the pre-capture processing would be applied to it.

In regards to claim 25 see the reasons for allowance of claim 15.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 14, 17, 19, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by (USPN 5,563,658 to Parulski et al.).

In regards to claim 1 Parulski discloses a method of capturing images in a camera, the method comprising:

acquiring a first set of image data based on a first frame of light entering the camera (e.g. the set of image data comprising the region 66 shown in Fig. 3 wherein the first image data is the

image acquired when passing through the image integration step shown in Fig. 6 for the first time; column 5, lines 64-65);

performing at least one pre-capture processing function on the first set of image data to produce a pre-capture result (e.g., generating an average contrast value; column 6, lines 5-8);

acquiring a second set of image data based on a second frame of light entering the camera (e.g., the second imaging cycle described on column 6, lines 11-13, wherein the second set of image data would be the region 66 of the second image);

performing at least one post-capture processing function on the second set of image data to produce a post-capture result (e.g., determining if the contrast is at a maximum and driving the focus lens toward a maximum value if it is not at a maximum; column 6, lines 13-20);

generating final image data based on the pre-capture result and the post-capture result (e.g., acquiring a final image when the contrast is a maximum; Fig. 6; column 6, lines 20-23).

In regard to claim 3 Examiner notes that the focus functions are contrast adjustment functions.

In regards to claim 14 Parulski discloses the method of claim 1 further comprising performing at least one pre-capture processing function on a portion of the second set of image data (e.g., the entire portion of 66 of the second image data) to produce a test result (e.g., an average contrast value) and comparing the test result to a pre-capture result (e.g., comparing the test result of the current image cycle to the previous image cycle).

In regards to claims 17 and 19 see Examiners notes on the rejection of claims 1 and 3 respectively.

In regards to claim 24 Parulski discloses the camera of claim 17 wherein the pre-processing component performs a pre-capture function on a portion of the image data for the second frame of light (e.g., determining the average contrast of the entire portion 66 of the image data comprising the second frame of light) and wherein the camera further comprises a comparison component capable of comparing the results of performing the same pre-capture function on the image data for the first frame of light and on the portion of the image data for the second frame of light (e.g., comparing the current and previous average contrast values to determine if contrast is maximized).

Claims 1, 2, 17, and 18 rejected under 35 U.S.C. 102(b) as being anticipated by (USPN 5,260,774 to Takayama).

In regards to claim 1 Takayama discloses a method of capturing images in a camera, the method comprising:

acquiring a first set of image data based on a first frame of light entering the camera (e.g., see Figs. 6 and 10);

performing at least one pre-capture processing function on the first set of image data to produce a pre-capture result (e.g., generating a white balance control values shown in Figs. 6 and 10);

acquiring a second set of image data based on a second frame of light entering the camera (e.g., Figs. 6 and 10);

performing at least one post-capture processing function on the second set of image data to produce a post-capture result (e.g., applying gain control to the red and blue signal components);

generating final image data based on the pre-capture result and the post-capture result (e.g., the video output signal is generated based on the gain amount determined by the pre-capture result and implemented through the gain control circuits in the post-capture result).

In regards to claim 2 note that the pre-processing is white balance.

In regards to claims 17 and 18 see Examiners notes on the rejection of claims 1 and 2 respectively.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over (USPN 5,260,774 to Takayama) in view of (USPN 6,489,989 to Shapiro et al.).

In regards to claim 5 Examiner notes that Takayama discloses performing white balance correction, but does not explicitly teach flesh tone correction. Shapiro teaches that in performing white balance correction, flesh tone corrections are also performed (e.g., column 7, lines 12-14). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention that the white balance function disclosed by Takayama is a flesh tone correction function.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian C. Genco who can be reached by phone at 703-305-7881 or by fax at 703-746-8325. The examiner can normally be reached on Monday thru Friday 8:30am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached on 703-308-9644. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is 703-308-4357.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brian C Genco
Examiner
Art Unit 2615

June 14, 2004

ANDREW CHRISTENSEN
SUPERVISORY PATENT EXAMINER
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